

23 The ions formed when element X and element Y react together are shown.

- Element X forms X^- ions.
- Element Y forms Y^{2+} ions.

Which row identifies the position of X and of Y in the Periodic Table?

	X	Y
A	Group I	Group VI
B	Group VII	Group II
C	Group VII	Group VI
D	Group I	Group II

24 Which properties decrease down the group of alkali metals?

- 1 melting point
- 2 density
- 3 reactivity

A 1 and 2 **B** 1 only **C** 2 and 3 **D** 3 only

25 Some halide ions are displaced from aqueous potassium halides by halogens.

In which mixtures are the halide ions displaced?

- 1 potassium bromide and chlorine
- 2 potassium bromide and iodine
- 3 potassium iodide and chlorine
- 4 potassium chloride and iodine

A 1 and 3 **B** 1 and 4 **C** 2 and 3 **D** 2 and 4

23 Which statement about the elements in Group I is correct?

- A** Hydrogen is produced when Group I elements react with water.
- B** Ions of Group I elements have a 1– charge.
- C** Sodium is more reactive than potassium.
- D** Solid sodium is a poor electrical conductor.

24 Which row describes the colour and state of iodine at room temperature and pressure?

	colour	state
A	green	liquid
B	grey-black	solid
C	purple	solid
D	red-brown	liquid

25 Part of the Periodic Table is shown.

Which element is an inert gas?

A simplified periodic table with 18 columns and 4 rows. The columns are grouped into four sets of three. Element A is in the top row, second column of the second set. Element B is in the second row, second column of the fourth set. Element C is in the third row, third column of the fourth set. Element D is in the third row, second column of the third set.

23 The Periodic Table shows the position of four different elements.

[illegible]

Which row is correct?

	element	number of electrons in the outer shell
A	non-metal	1
B	metal	5
C	metal	2
D	non-metal	7

26 Which row identifies a transition element?

	melting point	density at r.t.p.
A	high	high
B	high	low
C	low	high
D	low	low

21 The properties of the elements change from left to right across the Periodic Table.

Which statement describes how the properties change across Period 3?

- A** Elements change from gases to solids.
- B** Elements change from non-conductors to electrical conductors.
- C** Elements change from metal to non-metal.
- D** Elements have a decreasing number of electron shells.

22 Which property decreases down Group VII of the Periodic Table, from chlorine to iodine?

- A** atomic number
- B** density
- C** reactivity
- D** melting point